THE EVOLUTION OF GEOMORPHOLOGY: A NATION-BY-NATION SUMMARY OF DEVELOPMENT edited by H. J. Walker and W. E. Grabau, John Wiley & Sons, Chichester, 1993. No. of pages: xvi + 539. Price: £95.00. ISBN 0-471-93858-0.

Thirty years ago scarcely anybody was interested in the history of geomorphology. Today there is a modest literature devoted to the subject. Indeed, there are now almost as many volumes descriptive of the history of geomorphology as there were English-language texts of geomorphology during my own undergraduate years in the 1950s. Our world is being swept by retromania and in that, I hasten to add, I see nothing regrettable.

In 1989 there was founded the International Association of Geomorphologists, and at the inaugural meeting in Frankfurt there was distributed a volume entitled *The History of Geormorphology* published by the Japanese Geomorphological Union. The work presently under review is an expanded version of that volume. Aside from its editorial introduction, the work consists of chapters describing the history of geomorphology within 53 different nations, arranged alphabetically from Algeria and Argentina to Uruguay and the former Yugoslavia. The essays are all in English and the editors must be congratulated upon their assembly of so many contributions emanating from so comprehensive a range of cultural backgrounds.

There are a few notable gaps in the coverage. In western Europe, for instance, Denmark, Ireland and Norway are all absentees. I hope I will be forgiven my chauvinism if I observe that Ireland should certainly have been accorded a place, because she gave to geomorphology the terms 'drumlin' and 'esker', and because Jukes's paper of 1862 on the rivers of southern Ireland was global in its repercussions. The two editors of the volume hail from the American Deep South well beyond the limits of the Illinoian ice. Do the omissions from their volume of certain nations well-endowed with glacial phenomena reflect a tendency to what Freud might have termed 'ice envy'?

The volume will become a major reference work for all who are interested in the history of the Earth sciences and it must find its place in any self-respecting geosciences library. Particularly valuable are the bibliographies following each essay and listing the papers deemed to be seminal within each national context. I was surprised how very interesting I found most of the essays to be, and from them there emerges a fascinating global picture of geomorphic seeds being dispersed from an 18th century European nursery and then taking root throughout the world. As I read, my fingers itched to employ the material here presented as the basis for global dispersion maps using geo-isophenes (if I may coin that term) to indicate the flowering dates of geomorphic concepts in the various parts of our globe.

Historians of sciences often complain about scientists who imagine themselves to possess historical skills. Historians of phrenology never take up the scalpel of the brain surgeon, so why should brain surgeons imagine themselves to be equipped with the skills necessary to allow them to pen histories of phrenology? In this volume, practising geomorphologists have allowed themselves to become votaries of Clio. And right well have they performed their task. But there is something that I cannot allow. I cannot allow the editors to assume the monarchical privilege of ennoblement, even if it be a restrospective honour. They are wrong on pages 1 and 6 in their bestowment of a knighthood upon John Walker. Nor, I must add, do I believe a word of what they tell us about the geomorphic significance of that onetime Scottish cleric.

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ALLUVIAL SEDIMENTATION edited by M. Marzo and C. Puidefábregas, International Association of Sedimentologists, Special Publication No. 17, Blackwell Scientific Publications, 1993. No. of pages: xi + 586. Price: £70.00. ISBN 0-632-03545-5.

If I close my eyes, I can still vividly remember the smell of the best seafood paella I've ever had, the warm evening sun on a Sitges streetfront bar, the superb Spanish field excursions and a most enjoyable 4th Fluvial Sedimentology Conference. Opening my eyes and looking down on my desk, is this really the volume of the meeting before me in 1993? Is it really nearly 5 years since the event and, well, haven't I seen some of these papers before in some form, in a past life? The birth of this book after the longest gestation and labour pains of many a conference baby, epitomises both the best and worst of conference volumes. The best: a beautifully produced series of papers dealing with a wide range of material on fluvial systems and several papers that are destined to become benchmarks. The worst: the time to publication which is such that many papers are no longer at the sharp edge that they were when presented or written. In this case, the 4th fluvial baby sees the light of day after that from the succeeding 1993 fluvial conference held in Brisbane in July 1993! (*Sedimentary Geology*, Vol. 85). Many of the papers you'll find in *Alluvial Sedimentation* may therefore seem familiar or a little dated—you could have seen preprints of these or found them cited in more recent literature (or grant proposals or CVs!). At least you can now read them.

This book is the fourth in the Fluvial Sedimentology Conference series and represents a wide mix of process, geomorphology, facies architecture and alluvial stratigraphy. Of the 35 papers contained in this volume, perhaps only 20 per cent are directly process orientated (a somewhat higher percentage than papers presented at the conference), which reflects the fact that these meetings need to be more populated with process papers, geomorphological perspectives and research on contemporary earth surface processes; interpretation of the rock record has to rely on what we can feed in from the present. Call the first witness: call sequence stratigraphy.

This volume is split into five sections dealing with sediment transport, alluvial facies, geomorphic and structural controls on fluvial systems, alluvial stratigraphy and ores. Given that it is impossible to go through every paper in this brief review, here are my highlights and impressions of the book, which gets off to a good start with excellent papers by James (the entrainment of spheres from clusters), van den Berg and van Gelder (bedforms in silts) and Martini *et al.* (a fascinating account of sedimentation in a cold-climate river and the influence of ice rafting). The section on alluvial facies presents a series of interesting papers with, to my mind, the two treatments of point bar deposition by Willis and Díaz-Molina being most noteworthy in presenting detailed studies using both theoretical modelling and meticulous field reconstructions. A lengthy paper by Nemec and Postma in the section on controls on fluvial systems contains a superbly detailed account of sedimentation on an alluvial fan, presenting analysis of a wide range of processes and controls on sedimentation. The paper also reconstructs the morphology of gravel bars and sheets, which may have parallels in the current debate regarding the existence and generation of 'bedload sheets' and gravel lobes. The section concludes with an account by Wyzga of channel change on the Raba River, Poland, as influenced by both hydrologic regime and management.

Bridge and Mackey kick off the alluvial stratigraphy section with a revision of Bridge and Leeder's widely used model for alluvial aggradation, which should spur future work towards three-dimensional approximations. The rest of this section contains a wealth of studies on a range of fluvial–lacustrine–marine sequences and the controls of base level and tectonics on these sediments. Papers by Dreyer, Olsen and Larsen, Mack and James, and Mulder and Burbank provide valuable quantitative field studies of fluvial successions and highlight the complexity of interpreting the depositional controls on fluvial aggradation. The book concludes with two chapters on placer accumulations, the first by Nami and Ashworth briefly examining application of the MIDAS sediment transport model to grain size and density sorting.

This book will undoubtedly be much thumbed by those with interests in fluvial sediments across a wide range of disciplines in both academia and industry. Like all the other volumes from these conferences, it is a most valuable source and excellently produced. It is a pity that many contributions suffer from a slightly out-of-date feel, because the field has moved on over the past three years. Additionally, like the preceding volumes in the series (and perhaps more so), it cries out for more contributions on processes (e.g. no papers here discuss any aspects of the interactions between turbulence, sediment transport and bedforms), and certainly more from industry. Yes, we all know times are hard, but the flow of information needs to be two-way at these meetings, and the papers sourced from industry should number more than the paltry one or two present here. The book is essential for any library collection on fluvial sediments and, if you're willing to fork out the £70.00, your own copy probably won't sit gathering dust on your bookshelf, whether through use by you or your colleagues!

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